



City of Charleston

South Carolina

Department of Public Service

JOSEPH P. RILEY, JR.
Mayor

LAURA S. CABINESS, P.E.
Director

MEMORANDUM

To: Public Works and Utilities Committee

From: Laura S. Cabiness, PE *LS*

Date: May 19, 2010

Subject: **City of Charleston Stormwater Design Standards Manual Section 3.6.5.s - Gutter Spread Requirements Change**

On April 16, 2001, we received a variance request to the city's Stormwater Design Manual to the one-third gutter spread requirement listed in Section 3.6.5.s (see below) for all of the Carolina Bay Subdivision. Spread refers to the allowable width of flow encroachment onto the pavement section during storm events.

After a careful review of the requirements and with the approval of the Public Works and Utilities Committee, our Engineering Division recommends an amendment to the current requirement of an allowable spread of one-third of the travel lane. The new allowable gutter spread will be one-half of the travel lane. We have reviewed the criteria in the SCDOT's Requirements for Hydraulic Design Studies (May 26, 2009 edition) which recommends that for local streets with expected low average daily traffic counts (<10,000) the allowable gutter spread will be one-half of the travel lane for the five-year storm. For local streets with expected high average daily traffic counts (>10,000), the allowable gutter spread will be one-half of the travel lane for the ten-year storm. In accordance with the above, the city's Stormwater Design Standards Manual should be revised as follows:

Delete:

Section 3.6.5.s (as currently written)

s. **Inlet spacing** shall be based partly on the maximum spread of water into the road way. Inlet spacing shall be designed to accommodate for the appropriate design storm previously listed in this section. **Allowable spread** is one-third of the travel lane.

Replacing in its stead the following:

s. **Inlet spacing** shall be based partly on the maximum spread of water into the driving lane. Maximum gutter spread shall be designed in accordance with Table 2: Spread Criteria on Page 49 in SCDOT's Requirements for Hydraulic Design Studies (May 26, 2009 edition).